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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/523,861 | 02/07/2005 | Ichiro Okamoto | 450100-05043 | 1879 |

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EXAMINER

LOFTIN, CELESTE

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2686 | |

DATE MAILED: 11/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/523,861 | OKAMOTO, ICHIRO | |
| | Examiner | Art Unit | |
| | Celeste L. Loftin | 2686 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 5 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/07/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 12, 13, 14, 15A, 15B and 15C should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 5 and 7 are objected to because of the following informalities:

In claim 5 the word 'on' is missing in the line "said control means turns **on** said first switching means".

In claim 7 the word 'second' is missing in the line "said control means turns on said **second** switching means".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Ko, **(U.S. Publication 2002/0052228 A1)**.

Regarding claim 1, Ko discloses an electronic device, comprising:

a rotary operation unit that is freely rotatable (reads on the closing motor rotates clockwise or counter clockwise according to the operation control of motor driving unit) **(paragraph [0025])**,

an active element (i.e. sensors) for detecting rotation said rotary operation unit, and (the open and close sensors detect when the body is in an open or closed position and then outputs a detection signal to the control unit) **(paragraph [0025])**

control means for controlling power supply to said active element depending on a state of the device (it is inherent that power is also being supplied to the sensors (the reference discloses a control unit controls the overall control of the portable radio terminals and power is supplied to the control unit and each circuit portion according to the switching on/off of the power key)) **(paragraphs [0023] and [0031])**.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ko, (U.S. Publication 2002/0052228 A1) in view of Song, (U.S. Patent 6373397).

Regarding claim 2, Ko discloses an electronic device according to claim 1, but fails to disclose wherein

said active element includes a first and second active elements,

first and second switching means switching on and the power supplied each of said first and second active elements are provided, and

said control means turns on said first and second switching means an normal use time, and turns on said first and turns off said second switching means in a switching means first stand-by time.

In a similar field of endeavor, Song discloses said active element includes a first (i.e. first back light) and second active elements (i.e. second back light) (col. 3 lines 60-66),

first and second switching means switching on and the power supplied each of said first and second active elements are provided (the first back light depends on the signal from the CPU and the second back light depends on the signal coming from the

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flip switch (if the signal coming from the CPU is high the second light will not light up the key pad unless the signal from the flip switch is high)) (**col. 4 lines 21-30**), and

said control means turns on said first and second switching means an normal use time (if the CPU outputs a high signal and the flip switch sends a high signal (flip cover is open), both the first and second lights are on) (**col. 4 lines 21-30**), and turns on said first and turns off said second switching means (when the flip cover is closed the CPU outputs a high signal (this turns on the first back light) however the flip switch outputs a low signal (causing the second light not to turn on)) (**col. 4 lines 21-25**) in a switching means first stand-by time (the stand by time for this reference is considered to be when the user pushes the function selection key at the state when the flip cover is closed) (**col. 4 lines 21-26**) .

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said active element includes a first and second active elements, first and second switching means switching on and the power supplied each of said first and second active elements are provided, and said control means turns on said first and second switching means an normal use time, and turns on said first and turns off said second switching means in a switching means first stand-by time. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 3, the combination discloses an electronic device according to claim 2. Song further discloses wherein

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said control means further turns said first and second switching means in a second stand-by time after key-operation is forbidden (reads on the first and second back lights are not driven if the flip cover is close and the function selection key is not input (this is considered to be the second stand by time)) (**col.4 lines 30-35**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said control means further turns said first and second switching means in a second stand-by time after key-operation is forbidden. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 4 the combination discloses an electronic device according to claim 2. Song further discloses further comprising:

pulse-detecting means for detecting a pulse signal transmitted from the first active element in response to rotation of said rotary operation unit to generate an interrupt signal (when the flip cover is open the flip switch sends a signal to the CPU which sends a signal to turn on the first back light, that same signal is sent (considered the interrupt) to the AND gate (the AND gate also has a high signal coming from the flip switch because the flip is open) causing the AND gate to output a high signal and turn the second back light on) (**col. 4 lines 20-30 and Figure 3**), wherein

said control means turns said second switching means on by the interrupt signal from said pulse-detecting means when said rotary operation unit is operated to rotate in said first stand-by time (when the flip cover is open the flip switch sends a signal to the CPU which sends a signal to turn on the first back light, that same signal is sent (considered the interrupt) to the AND gate (the AND gate also has a high signal coming

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from the flip switch because the flip is open) causing the AND gate to output a high signal and turn the second back light on) (**col. 4 lines 20-30 and Figure 3**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include a pulse-detecting means for detecting a pulse signal transmitted from the first active element in response to rotation of said rotary operation unit to generate an interrupt signal, wherein said control means turns said second switching means on by the interrupt signal from said pulse-detecting means when said rotary operation unit is operated to rotate in said first stand-by time. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 5, the combination discloses an electronic device according to claim 4. Song further discloses wherein

said control means turns said first switching means or both of said first and second switching means when said setting of forbidden key-operation is released in said second stand-by time (if the user pushes the function key but the flip cover is open both the first and the second back lights are on) (**col.4 lines 19-30, figure 2**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said control means turns said first switching means or both of said first and second switching means when said setting of forbidden key-operation is released in said second stand-by time. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 6, Ko discloses an electronic device according to claim 1,

power-supply-control means turning on and off the power supplied to said second active element is further included power is supplied to the control unit and each circuit portion according to the switching on/off of the power key (**paragraphs [0031]**),

said control means turns said power-supply-control means an normal use time (reads on the control unit controls the first switch closed the second switch open in the powered on state of the terminal)

Ko fails to disclose wherein said active element includes a first and second active elements, and turns off said power-supply-control means in a stand-by time.

In a similar field of endeavor, Song discloses wherein said active element includes a first (i.e. first back light) and second active elements (i.e. second back light) (**col. 3 lines 60-66**), and turns off said power-supply-control means in a stand-by time (reads on the first and second back lights are not driven if the flip cover is close and the function selection key is not input (this is considered to be the second stand by time)) (**col.4 lines 30-35**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include wherein said active element includes a first and second active elements, and turns off said power-supply-control means in a stand-by time. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 7, the combination discloses an electronic device according to claim 6. Song further discloses further comprising'.

pulse-detecting means for detecting a pulse signal transmitted from the first active element in response to rotary operation of said rotary operation unit to generate an interrupt signal (when the flip cover is open the flip switch sends a signal to the CPU which sends a signal to turn on the first back light, that same signal is sent (considered the interrupt) to the AND gate (the AND gate also has a high signal coming from the flip switch because the flip is open) causing the AND gate to output a high signal and turn the second back light on) (**col. 4 lines 20-30 and Figure 3**), wherein

said control means turns on said switching means by the interrupt signal from said pulse-detecting means, when said rotary operation unit is operated to rotate said stand-by time (when the flip cover is open the flip switch sends a signal to the CPU which sends a signal to turn on the first back light, that same signal is sent (considered the interrupt) to the AND gate (the AND gate also has a high signal coming from the flip switch because the flip is open) causing the AND gate to output a high signal and turn the second back light on) (**col. 4 lines 20-30 and Figure 3**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include a pulse-detecting means for detecting a pulse signal transmitted from the first active element in response to rotation of said rotary operation unit to generate an interrupt signal, wherein said control means turns said second switching means on by the interrupt signal from said pulse-detecting means when said rotary operation unit is operated to rotate in said first stand-by time. Motivation for this modification would have been to reduce unnecessary power consumption.

Regarding claim 8, Ko discloses an electronic device according claim 1, further comprising

a structure in which a first casing and a second casing are connected to be capable of being opened and closed and (reads on a portable terminal in which a sub-body can be opened from or closed onto a main body) (**paragraph 0020**)

the rotary operation unit that is freely rotatable (reads on the closing motor rotates clockwise or counter clockwise according to the operation control of motor driving unit) (**paragraph [0025]**). Ko fails to disclose wherein

said control means stops supplying power to said active elements when said casings are closed and starts supplying power to said active element when said casings are opened.

In a similar field of endeavor, Song discloses wherein said control means stops supplying power to said active elements when said casings are closed (if the flip cover is closed a voltage difference is calculated and applied to the CPU) (**col. 5 lines 4-56**) and starts supplying power to said active element when said casings are opened (reads on if the flip cover is open the voltage difference is no generated) (**col. 5 lines 65-67 and col. 6 lines 1-5**).

At the time of invention it would have been obvious to one of ordinary skill in the art to further modify Ko to include said control means stops supplying power to said active elements when said casings are closed and starts supplying power to said active element when said casings are opened. Motivation for this modification would have been to reduce unnecessary power consumption.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Park, U.S. Publication 2002/0177475, discloses a power saving method for mobile communication terminal.

Kfoury, U.S. Patent 6,549,789, discloses a portable electronic device with an adaptable user interface.

Tanabe, U.S. Patent 6,829,494, discloses a radio communication terminal and control method therefor.

Sawada, U.S. Publication 2002/0086698 A1, discloses a switching device.

Lutnaes, U.S. Patent 6,342,738 discloses a mobile electronic device with integrated dual hardware software power switch.

Nishiyama et al., U.S. Patent 5,710,576 discloses a portable electronic apparatus having a partial display function.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Celeste L. Loftin whose telephone number is 571-272-2842. The examiner can normally be reached on Monday thru Friday 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL


JOY K. CONTEE
AGENT EXAMINER